

CLAIMS

1. A control device (106) comprising:

first communication means (118) for communicating information,

5 generation means (113) for generating, based on first information representing control contents of an appliance (111, 121), received by said first communication means (118), second information representing an operation of said appliance (111, 121), and first control means (113) for controlling said first communication means (118) such that said second information is transmitted to said appliance (111, 121).

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2. The control device according to claim 1, wherein said generation means (113) comprises

first storage means (802) for storing third information representing an operation to generate said second information, and

15 operation means (800) for generating said second information by an operation represented by said third information.

20 3. The control device according to claim 2, wherein said first storage means (802) includes modification means for storing said third information such that at least a portion can be modified.

4. The control device according to claim 2, wherein said first storage means (802) includes means for storing a plurality of said third information in correspondence with said appliance (111, 121),

25 said control device (106) further comprising select means (800) for selecting any of said plurality of third information based on fourth information identifying said appliance (111, 121), received by said first communication means (118), wherein said operation means (800) includes means for generating said second

information by an operation represented by the third information selected by said select means (800).

5. The control device according to claim 1, wherein said first communication means (118) includes a plurality of communication means selectively used according to a communication destination.

6. The control device according to claim 1, further comprising:
10 second storage means (803) for storing fifth information representing a permitted appliance of which an operation by a user is permitted in correspondence with said user, among said appliances (111, 121), and
second control means (800) for controlling said first communication means (118) such that information including the fifth information corresponding to a user of a transmission source of said first information is transmitted to said transmission source in 15 response to reception of seventh information identifying the user of said transmission source and eighth information requesting identification of said appliance (111, 121) by said first communication means (118).

7. The control device according to claim 6, further comprising means (800) for 20 counting time,

wherein information transmitted by said second control means (800) further includes information representing said time.

8. The control device according to claim 6, further comprising determination 25 means (800) for determining whether said second information is to be generated or not by said generation means (113) based on information identifying said transmission source.

9. The control device according to claim 8, wherein said information identifying said transmission source includes any of seventh information identifying a user of said transmission source and tenth information identifying a device of said transmission source.

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10. The control device according to claim 1, further comprising second control means (800) for controlling said first communication means (118) such that ninth information including information identifying said appliance (111, 121) is transmitted to a transmission source of said first information, based on sixth information identifying the transmission source of said first information.

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11. The control device according to claim 10, wherein said sixth information includes seventh information identifying a user of said transmission source and tenth information identifying a device of said transmission source,

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wherein said second control means (800) comprises means for controlling said first communication means (118) such that said ninth information is transmitted in a manner suiting the device and the user of said transmission source based on said seventh information and tenth information.

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12. The control device according to claim 10, wherein said second control means (800) comprises means for controlling said first communication means (118) such that said ninth information is transmitted in response to reception of eighth information requesting identification of said appliance (111, 121) by said first communication means (118).

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13. The control device according to claim 1, further comprising: second communication means (116) for communicating information, and third control means (800) for controlling said first communication means (118)

and said second communication means (116) such that eleventh information communicated using one of said first communication means (118) and said second communication means (116) is transmitted using the other of said first communication means (118) and said second communication means (116) to a communication 5 destination differing from the communication destination of said eleventh information.

14. A communication device for control (104) comprising:
input means (152) for entering information,
generation means (150) for generating identification information identifying a 10 user of said communication device for control (104) and said communication device for control (104) based on information input at said input means (152),
transmission and reception means (156) for transmitting said identification information and receiving reception information transmitted based on said identification information, and
15 output means (154) for providing said reception information.

15. The communication device for control according to claim 14, wherein said identification information includes seventh information identifying a user of said communication device for control and tenth information identifying said communication 20 device for control.

16. The communication device for control according to claim 14, wherein any of said seventh information and said tenth information includes information dedicated to an identified subject.

25 17. The communication device for control according to claim 14, wherein said output means (154) comprises means for providing said reception information in response to input of predetermined information at said input means (152).

18. A control system (100) including a communication device for control (104), a control device (106), a relay device (108) and an appliance (111, 121), wherein said communication device for control (104) comprises

5 input means (152) for entering information,
 communication means (156) for communicating information, and
 output means (154) for providing information received by said communication means,

 wherein said control device (106) comprises

10 first communication means (118) for communicating information,
 generation means (113) for generating, based on first information representing control contents of said appliance (111, 121), received from said communication device for control (104) by said first communication means (118), second information representing an operation of said appliance (111, 121),

15 first control means (113) for controlling said first communication means (118) such that said second information is transmitted to said appliance (111, 121),

 wherein said relay circuit (108) comprises

 input means (911) for entering input information from said appliance (111, 121),
 first conversion means (140) for converting said input information into

20 information to be transmitted to said control device (106),

 communication means (144) for communication with said control device (106),

 second conversion means (140) for converting information received from said control device (106) into conversion information that can be used by said appliance (111, 121), and

25 output means (910) for providing said conversion information to said appliance, wherein said appliance (111, 121) comprises
 control means for controlling said appliance, based on said conversion information, and

output means for providing information related to control by said control means.

19. The control system according to claim 18, wherein said communication device for control (104) further comprises generation means (150) for generating communication information that identifies any of said communication device for control itself and a user of said communication device for control,

5 wherein said communication means (156) of said communication device for control includes transmission and reception means for transmitting said communication information and receiving reception information transmitted based on said communication information.

10 20. The control system according to claim 18, wherein said communication device for control (104) further comprises generation means (150) for generating communication information that identifies said communication device for control itself and a user of said communication device for control,

15 wherein said communication means (156) of said communication device for control comprises transmission and reception means for transmitting said communication information and receiving reception information transmitted based on said communication information.

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21. The control system according to claim 18, wherein said output means (154) of said communication device for control comprises means for providing said reception information in response to input of predetermined information at said input means of said communication device for control.

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22. The control system according to claim 18, wherein said control device (106) further comprises
second storage means (803) for storing fifth information representing a permitted

appliance of which operation by a user is permitted in correspondence with said user, among said appliances (111, 121), and

second control means (800) for controlling said first communication means (118) such that information including fifth information corresponding to a user of a transmission source of said first information is transmitted to said transmission source in response to reception of seventh information identifying a user of the transmission source of said first information and eighth information requesting identification of said appliance (111, 121) by said first communication means (118).

10 23. The control system according to claim 22, wherein said control means (800) includes means for controlling said first communication means (118) such that said ninth information is transmitted in a manner suiting the communication device for control and user of said transmission source, based on seventh information identifying a user of said transmission source and tenth information identifying a communication device for control of said transmission source, received by said first communication means (118).

20 24. The control system according to claim 18, wherein said control device (106) further comprises second means (800) for controlling said first communication means (118) such that ninth information including information identifying said appliance (111, 121) is transmitted to a transmission source of said first information, based on sixth information identifying said transmission source.

25 25. The control system according to claim 18, wherein said control device (106) further comprises control means (800) for counting time, information transmitted by said second control means (800) further including information representing said time.

26. The control system according to claim 18, wherein said control device (106) further comprises determination means (800) for determining whether said second information is to be generated or not by said generation means (113) based on information identifying said transmission source.

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27. The control system according to claim 26, wherein said information identifying said transmission source includes seventh information identifying a user of said transmission source and tenth information identifying a communication device for control of said transmission source.

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28. The control system according to claim 18, wherein said generation means (113) includes

first storage means (802) for storing a plurality of third information representing an operation to generate said second information in correspondence with any of said communication device for control itself and a user of said communication device for control, and

operation means (800) for generating said second information by an operation based on any of said plurality of third information,

wherein said control device (106) further comprises select means (113) for selecting third information employed in generation of said second information from said plurality of third information, based on communication information identifying any of said communication device for control itself and a user of said communication device for control, received by said first communication means (118).

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29. The control system according to claim 18, wherein said control device comprises

second communication means (116) for communicating information, and
third control means (300) for controlling said first communication means (118)

and said second communication means (116) such that eleventh information communicated using one of said first communication means (118) and said second communication means (116) is communicated using the other of said first communication means (118) and said second communication means (116) to a communication destination differing from the communication destination of said eleventh information.

30. A relay device (108) employed in a control system including a communication device for control (104), a control device (106), a relay device and an appliance (111, 121), said relay device comprising:

input means (911) for entering input information from said appliance (111, 121),
first conversion means (140) for converting said input information into
information to be transmitted to said control device (106),
communication means (144) for communicating with said control device (106),
second conversion means (140) for converting information received from said
control device (106) into conversion information that can be used by said appliance (111,
121), and
output means (910) for providing said conversion information to said appliance.

20 31. A control method comprising:
 a first communication step (S50) of communicating information,
 a generation step (S59) of generating second information representing an
operation of said appliance based on first information representing control contents of an
appliance, received at said first communication step (S50), and
25 a first control step (S61) of controlling said first communication step (S50) such
that said second information is transmitted to said appliance.

32. A control program to cause a computer to realize:

a first communication step (S50) of communicating information,
a generation step (S59) of generating second information representing an
operation of said appliance based on first information representing control contents of an
appliance, received at said first communication step (S50), and
5 a first control step (S61) of controlling said first communication step (S50) such
that said second information is transmitted to said appliance.

33. A recording medium (822, 824) having a control program recorded to
cause a computer to realize:

10 a first communication step (S50) of communicating information,
a generation step (S59) of generating second information representing an
operation of said appliance based on first information representing control contents of an
appliance, received at said first communication step (S50), and
15 a first control step (S61) of controlling said first communication step (S50) such
that said second information is transmitted to said appliance.